

SECTION 106 CONTROL OF MATERIAL

106.01 SOURCE OF SUPPLY AND QUALITY REQUIREMENTS.

106.01.1 Source of Supply. Use only materials that meet the Contract requirements.

Material may be inspected and tested at the source of supply before delivery to the project. All materials may be inspected, tested, and possibly rejected before incorporated into the work.

Determine the quality and quantity of materials produced at or developed from any source based on the contract documents and by conducting an independent source investigation.

If payments due the owner of a materials source become delinquent and the owner notifies the Department, a sum equal to the amount of the delinquent payments may be withheld from estimate payments due the Contractor.

106.01.2 Samples, Tests, Cited Specifications. Do not incorporate any material into the work until it is inspected, tested, and accepted by the Department. Remove unacceptable materials from the work at Contractor expense.

Reference to a specification or test designated in AASHTO, ASTM, Federal Specifications, or any other recognized, nonproprietary national organization, is the specification or test method that is current on the date of advertisement for bids and as amended by the Department's Test Method Manual. Copies of individual test methods are available from the Department's Materials Bureau in Helena.

Department material tests are by and at the Department's expense. Where there is a difference in the test methods, the order of precedence for tests will be:

- A. The Department's Standard Material Test Methods
- B. AASHTO
- C. ASTM

Submit representative preliminary materials samples in the specified quantities for testing upon request. The testing of preliminary source samples does not constitute acceptance of the materials. Only materials delivered for incorporation into the work will be accepted or rejected based on the test results specified in the Contract.

106.01.3 Unacceptable Materials. All materials not meeting the Contract requirements will be accepted or rejected under Subsection 105.03.

106.02 LOCAL MATERIAL SOURCES.

106.02.1 General. Local aggregate, borrow and topsoil materials sources include prospected sources, contractor-furnished sources, and mandatory sources.

Provide the source for obtaining local materials unless mandatory sources are specified. When prospected sources are identified in the Contract, use the prospected sources or locate other sources of material. Contractor-furnished sources must be approved by the Engineer. The Contractor must:

- A. Provide an approved reclamation plan meeting Subsection 106.02.5 before using any materials source.
- B. Comply with Section 106 of the National Historic Preservation Act.
- C. Adhere to State and Federal requirements and obtain clearance from the State Historic Preservation Officer before using material from surfacing and borrow sources.

106.02.2 Prospected Sources. Contact the Department for information on Department prospected local material sources.

The Department is not responsible for the quantity or quality of materials indicated in the prospected source reports. Test data included in the reports are based on the samples tested from the exact locations shown using standard tests. No interpretation is made or intended by the Department. Any interpretation is the judgement of the person examining the tests. See Subsection 102.06 concerning verifying quantity and quality by an independent subsurface investigation before submitting a bid.

If a "Surfacing Materials Prospect Report" shows a prospected source to be "Department-Optioned" or "Department-Owned," the material may be available for use, possibly with a royalty or other cost. Do not sell material from Department-owned or Department-optioned sources without a written agreement establishing royalty refunds to the Department.

Follow Department made arrangements with landowners for sampling and obtaining material from the prospected material sources.

Pay all royalties and adhere to all agreed stipulations, including contouring of pits, topsoil conservation and replacement, seeding, repair or obliteration of haul roads, cattleguards, and fencing, the cost of which is incidental to and included in the materials cost.

106.02.3 Contractor-Furnished Sources. Acquire the rights to take materials from contractor-furnished sources and pay all related costs, including costs due to increased haul length, exploring and source development.

The Department will process and test samples to determine the suitability of the material. See Subsection 106.10 for the number of department furnished tests at Department expense.

Arrange with the Project Manager for representative samples to be taken and witnessed by the department at least 30 calendar days before beginning aggregate production. Provide all equipment and labor necessary for the sampling.

Source approval will be based on part or all the following sample test results :

- A. Wear Test MT-209 (acceptance);
- B. Volume Swell Test MT-305 (acceptance);
- C. Trial Mix Marshall Properties MT-306 (informational);
- D. Immersion-Compression Test MT-324 (informational);
- E. Adhesion MT-309 (informational).

Passing test results are mandatory for wear and volume swell for approving an bituminized material aggregate source. Passing wear test results are mandatory for untreated aggregate sources.

Source approval does not release the Contractor from the responsibility to produce aggregate meeting all specified acceptance requirements.

The Engineer may limit the proportion of natural fines in the total aggregate based on the verified mix design.

106.02.4 Mandatory Material Sources. Use of materials from mandatory sources is a condition for preparing a bid and executing a Contract. Follow the conditions in the Contract for producing materials from mandatory sources.

106.02.5 Reclamation Requirements.

- A. General.** Reclaim all land used in constructing the project as required by the approved reclamation plan. Comply with the pertinent statutes relating to the open cut mining (Title 82, Ch. 4 MCA); the hard rock mining (Title 82, Ch. 4, Part 3); water quality (Title 75, Ch.5); stream bank preservation (Title 82, Ch. 5, Part 5 and Title 75, Ch. 5); Montana County Noxious Weed Management Act Title 7, Ch. 22 Part 21; and all other applicable federal, state, and local statutes, regulations and ordinances.

The Department of State Lands has final responsibility for administration of the Open Cut Mining Act and the Hard Rock Mining Act and must review and approve all reclamation plans and reclamation work. Follow all directives and instructions issued by the Department of State Lands with regard to reclamation work.

- B. Reclamation Plan.** Submit a copy of the approved reclamation plan to the Project Manager before removing earth, quarried rock, sand, gravel, or other substance from any materials source. Follow the Department of State Lands "Format For Reclamation Plan" and "Mapping Guidelines" when developing reclamation plans. The format and guidelines are available from:

Department of State Lands
Open Cut Bureau
1625 Eleventh Avenue
Helena, MT 59620
Phone: 406-444-2074

The time allowed for approval of reclamation plans is included in the Open Cut Mining Act, Section 82-4-434, MCA .

- C. Reclamation Work.** Perform reclamation immediately after removing the necessary material. Leave all slopes in a stable condition and, if topographic conditions permit, grade to no steeper than 3:1 after final grading. Grade the excavated area to maintain the natural contour of the land and blend into the surrounding terrain. Remove or grade all outcroppings to daylight where possible.

Strip and stockpile all topsoil and overburden from the material source, stockpile site, crushing area, and equipment parking areas before excavating material. Salvage all topsoil from all new or widened haul, access, and service roads before grading or surfacing. Reclaim all roads when removal operations are complete. Store overburden or subsoil separately from topsoil and replace before topsoil is replaced on reclaimed areas. Uniformly re-distribute all topsoil to the entire reclaimed area.

Seed all re-topsoiled areas during the first seeding season following grading and topsoil replacement. Contour-seed all slopes steeper than 3:1.

Fence newly seeded, reclaimed areas including roads where required to protect from livestock. Use Type F-3M fence.

Do not locate material sources in a flowing stream or on a stream floodway at a location likely to develop a new channel to the stream during flooding. Leave the final floor elevations of material sources high enough to not be impacted by fluctuations in the groundwater table, unless addressed in the approved reclamation plan. Provide protection and safety of persons and property adjacent to the work.

- D. Method of Measurement and Basis of Payment.** Reclamation of material sources is incidental to the materials cost.

106.02.6 Protection of Livestock & Property. Prevent livestock from straying into or out of any materials source.

Protect all irrigation facilities from construction operations. Promptly repair or replace damaged irrigation facilities to the landowner's satisfaction at Contractor expense.

106.02.7 Rejects (Excess Fines). Material referred to as "rejects" are inherent in a rock pit, gravel pit, or quarry, or accumulated during crushing and screening operations. Stockpile rejects, from material sources owned or optioned by the Department and not acceptable for use on the project, at a site selected or approved by the Engineer when requested. Stockpiled reject material will be paid for at 15 cents per ton mile (10 cents per metric ton kilometer) for haul in excess of 200 feet (61 meters) from the crusher site to the stockpile.

Retain title to all rejects accumulated during aggregate production from contractor-furnished sources. Department purchased rejects will be paid for at an agreed purchase price.

106.03 CERTIFICATION OF COMPLIANCE. The Contract or the Engineer will designate materials or assemblies that can be incorporated into the work by Certificates of Compliance stating that they meet the Contract requirements. The certificate must be signed by the manufacturer and notarized. Clearly identify each lot of certified materials or assemblies delivered to the work in the Certificate of Compliance.

Materials or assemblies used on the basis of Certificates of Compliance may be sampled and tested at any time. Materials not meeting contract requirements will be rejected.

106.04 PLANT INSPECTION. Meet the following conditions if materials are Department inspected at the source of supply or manufacture:

- A. Provide the Inspector full cooperation and assistance during inspections;
- B. Provide the Inspector full entry to all parts of the plant used in the manufacture or production of the materials;
- C. Furnish the facilities to determine if the material furnished meets contract requirements;
- D. Provide and maintain adequate safety measures.

Materials inspected at the source may be re-inspected before incorporation into the work. Materials not meeting the Contract requirements will be rejected.

106.05 FIELD LABORATORY. The Department will furnish all field offices and laboratories.

Furnish 110-120 volt alternating current of sufficient capacity and a potable water supply to operate all testing equipment for the offices and laboratories at Contractor expense.

106.06 RESERVED.

106.07 HANDLING AND STORAGE OF MATERIALS. Store and handle materials to preserve their quality. Stored materials, are subject to inspection and re-testing before incorporating into the work. Locate stored materials for ease of inspection. Obtain approval to use portions of the right-of-way for storage and placing the plant and equipment. Obtain additional required space at Contractor expense. Do not use private property for storage without the landowners or lessees written permission. Furnish copies of the written permission to the Project Manager. Restore all storage sites to original condition at Contractor expense.

Transport bulk materials in vehicles that do not cause material loss or segregation.

106.08 DEPARTMENT-FURNISHED MATERIAL. Department furnished material will be delivered or made available at the locations specified.

Include the cost of handling and placing Department-furnished materials in the contract price for the item.

Be responsible for all Department furnished material. Deductions will be made from any monies due for shortages, deficiencies, and damage that occurs after delivery. Demurrage charges, resulting from failure to accept the material at the designated time and location will be deducted from monies due the Contractor.

106.09 DOMESTIC MATERIALS. Furnish domestic steel or iron materials for permanent incorporation in the work. Domestic material is material that all manufacturing processes, including coating of steel or iron, occur in the United States. Pig iron, and processed, pelletized and reduced iron ore may be manufactured outside the United States. Furnish the appropriate manufacturer's mill tests and certifications documenting the manufacturing processes, including coatings of covered materials, performed in the United States. A minimal quantity of foreign manufactured steel and iron material may be used if the cost of the material, including delivery costs to the project, does not exceed one-tenth of one percent of the total contract amount or \$2,500.00, whichever is greater. Do not incorporate steel or iron materials into the project until the proper documentation is furnished to the Project Manager.

106.10 BITUMINOUS AND CONCRETE MIX DESIGNS AND TESTING OF SURFACING MATERIAL SOURCES. The Department will furnish the following at no cost to the Contractor:

<u>Description</u>	<u>Number Furnished per Contract Without Charge</u>
Plant Mix Surfacing Mix Design	2 per grade
Plant Mix Base Mix Design	2 per grade
Open-Graded Friction Course Mix Design	2 per grade
Portland Cement Concrete Mix Design	1 per class
Cement-Treated Base Mix Design	2 per grade
Surfacing Material Testing Package (indicated source(s) shown on plans)	2
(surfacing source(s) furnished by Contractor)	2

The Contractor will be charged the Department's cost for each additional mix design and testing package furnished. The total cost will be deducted from the progress estimate payments using the schedule of the current charges for additional testing packages and mix designs available from the Project Manager.